



National Transportation Safety Board Aviation Accident Data Summary

Location:	Sylvan Grove, KS	Accident Number:	DEN07LA133
Date & Time:	08/01/2007, 1615 CDT	Registration:	N7441W
Aircraft:	Walker Lancair IV	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane had been fully serviced with fuel and oil prior to takeoff. During the initial climb to 10,500 feet, the electronic manifold pressure gauge malfunctioned so the pilot managed power "by throttle position." He reduced power when the number 2 cylinder head temperature increased more than the other cylinder head temperatures. Almost immediately upon leveling off, the engine lost power. When the fuel boost pump was switched to HIGH, the engine "fired and achieved lower power for 30 seconds." Mixture control manipulation restarted the engine, but after a few seconds there was "an explosion and a lot of smoke." The engine stopped but [the propeller] "appeared to be turning freely" all the way down. The pilot made a rapid descent and landed in an open field. The airplane rolled about 400 feet, crested a small rise, then struck a ground depression that collapsed the landing gear. The airplane then slid sideways for another 300 feet. The pilot used his cellular telephone to alert authorities of the accident. FAA inspectors examined the engine, a Continental TSIO-550-B-1-B (s.n. 802008), and found evidence of catastrophic engine failure. An oil line to the turbocharger wastegate actuator had come loose, causing oil starvation and high heat distress. A hole in the engine case exposed the number 5 journal and imprints from rod bolt strikes. The airplane was built in 1992. The engine had a total time of 88 hours.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A catastrophic engine failure due to oil starvation when an oil line to the turbocharger wastegate actuator came loose. Contributing factors in this accident were the unsuitable terrain on which to make a forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) LUBRICATING SYSTEM,OIL LINE - NOT SECURED
2. (C) FLUID,OIL - STARVATION
3. ENGINE ASSEMBLY,CONNECTING ROD BOLT - FAILURE

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

Findings

4. (F) TERRAIN CONDITION - NONE SUITABLE
5. TERRAIN CONDITION - OPEN FIELD
6. TERRAIN CONDITION - ROUGH/UNEVEN

Aircraft and Owner/Operator Information

Aircraft Make:	Walker	Registration:	N7441W
Model/Series:	Lancair IV	Engines:	1 Reciprocating
Operator:	Bruce A. Stratton	Engine Manufacturer:	Continental
Operating Certificate(s) Held:	None	Engine Model/Series:	TSIO-550-B
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RSL, 1862 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	14 knots / 18 knots, 150°
Temperature:	32° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Junction City, KS (3JC)	Destination:	Farmington, NM (FMN)

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	38.993889, -99.595278		

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Adopted Date:	12/20/2007
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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